SADDLE CREST HOMES FINAL EIR

Additional Responses to Comments

Prepared for
County of Orange

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SADDLE CREST HOMES FINAL EIR
Additional Responses to Comments

Since the Final Environmental Impact Report (EIR) has been available, comments and questions relating to the analyses of various environmental issues discussed in the EIR were received from the public and others. This document addresses new issues that have been raised, and where appropriate, provides additional information to respond to concerns about the EIR's evaluation of particular environmental impacts. This document also includes a summary of some of the features of the Saddle Crest Homes Area Plan, which relate to how the proposed project implements various provisions of the General Plan and Foothill/Trabuco Specific Plan (F/TSP).

Finally this document also includes additions and revisions to the EIR for the purposes of clarification, to update the EIR with information that was not previously available, and to correct typographical errors.

County staff has reviewed the material provided below in the discussion of environmental issues and the revision to the Draft/Final EIR, and determined that it does not constitute significant new information that requires recirculation of the EIR for further public comment under the California Environmental Quality Act (CEQA) and the *CEQA Guidelines* Section 15088.5. None of this material indicates that the proposed project would result in a significant new environmental impact not previously disclosed in the EIR. Additionally, none of this material indicates that there would be a substantial increase in the severity of a previously identified environmental impact that would not be mitigated or that there would be any of the other circumstances requiring recirculation as described in Section 15088.5.

Discussion of Environmental Issues

Traffic: An issue was raised questioning how the intersection of Ridgeline Road at Santiago Canyon Road was accounted for in the traffic analysis. The traffic volume on Ridgeline Road North is very low (approximately 1,305 average daily trips) and is currently below its design capacity. In addition, the intersection includes sufficient sight distance, based on Orange County Public Works Department standards. Potential traffic impacts of the Santiago Canyon Road and Ridgeline Road North intersection were not separately included in the traffic analysis, as adjacent north and south intersections and adjacent roadway segments were included in the traffic study. In addition, based on the collision history and the existing site distance at the intersection, the Ridgeline Road North/Santiago Canyon Road intersection does not have an unusually high collision rate. The level of traffic is not expected to change significantly as future traffic increases in the area, even with the development of the proposed project. Please see **Attachment A**, a letter

report prepared by RK Engineering Group, Inc, which provides additional details regarding this intersection.

Several members of the public also requested further information regarding potential traffic safety impacts at the project entry, due to the road curvature. Traffic safety at the project access and Santiago Canyon Road has been reviewed in conjunction with overall project design and based upon Orange County Standard Plan 1117, which takes into account the required design speed on Santiago Canyon Road and the roadway geometry. Based on this review, adequate sight distance can be maintained to meet County design standards, and no traffic safety issues are anticipated to occur at the proposed access and Santiago Canyon Road. Please see Attachment A for further details.

Several questions and comments relating to the traffic impact analysis for Santiago Canyon Road segments raise concerns about the baseline used for the analysis, the changes in traffic conditions that would result from the project and the method used to determine the significance of those changes.

Generally, the baseline for a CEQA impact analysis is the physical conditions as they exist at the time the EIR is prepared. For purposes of a traffic impact analysis, the baseline that is ordinarily used is the existing volume of traffic, during peak periods, on the relevant road segments and intersections. Consistent with this standard approach, Table 3.14-2 of the Draft EIR describes existing conditions and provides data on existing A.M. and P.M. peak hour traffic volumes. Table 3.14-11 of the Draft EIR then shows the impact analysis of what traffic volumes are expected to be, inclusive of the expected traffic generated by the proposed project. Separately, the analysis in the Draft EIR also shows future cumulative conditions by providing traffic volume data for year 2015 (Tables 3.14-12 and 3.14-13) and year 2035 (Tables 3.14-14 and 3.14-15) with and without the expected traffic generated by the proposed project. Together, these traffic volume forecasts show the change to the physical traffic environment that would occur if the proposed project is approved; the increase in the volume of traffic in comparison with existing conditions and with projected future conditions.

Determining the impact of increases in traffic on motorists, and the significance of that impact, involves two elements: a significance standard defining the point at which an increase in traffic volumes is deemed to have a significant adverse impact on motorists, and a methodology for determining whether that standard would be exceeded.

The standard of significance in the traffic section of the EIR is expressed in terms of the level of service experienced by motorists. In a road segment analysis, Level of Service (LOS) A means a motorist experiences relatively free traffic flow with no physical restriction on operating speeds; LOS C means traffic conditions are stable but motorists experience some delays in traffic flow and more restrictions on speed; and LOS D means approaching unstable flow and motorists experience significant delays in traffic flow with reduced speeds. For the Santiago Canyon Road segment analysis completed to determine if significant environmental impacts to traffic would occur, the level of service is set at LOS C. Under this standard, any increase in traffic that would

cause the level of service on a road segment to degrade to LOS D or worse is deemed to have a significant adverse impact for purposes of measuring potential traffic impacts under CEQA.

The existing level of service on a two-lane road such as Santiago Canyon Road can be determined by measuring the speed of traffic on the road under current conditions. However, future levels of service have to be estimated by using an analytical procedure for translating projected traffic volumes into forecasts of the expected level of service. Two methodologies for forecasting future level of service are available. One, the volume to capacity (v/c) method, compares traffic volumes with road capacity, and forecasts level of service based on the amount of the road's physical capacity that will be used. The other methodology, the Highway Capacity Manual's (HCM) two-lane highway methodology for rural roads, is based on a calculation of percent time spent following (PTSF), and forecasts level of service based on projections of how long a motorist will have to wait to pass another vehicle.

As the traffic analysis in the Draft EIR explains, given the characteristics of Santiago Canyon Road, the v/c methodology is a better predictor than the HCM PTSF methodology of the effect increases in the volume of traffic will have on the road's level of service. This is confirmed by field observations of existing traffic operating conditions, the fact that passing is prohibited on approximately 94 percent of Santiago Canyon Road within the County's jurisdiction, and data from travel time runs which have shown that the level of service calculated for existing traffic using the HCM PTSF method does not reflect actual operating conditions. By contrast, a v/c analysis for existing traffic shows a high correlation with data on existing traffic conditions, including travel times and traffic speed. The speed limit on Santiago Canyon Road is 55 miles per hour (mph). Travel time runs during the A.M. and P.M. peak periods show average vehicle speeds of over 50 mph. This speed reflects little if any congestion or obstruction of traffic flow and corresponds to a LOS A. By contrast, the HCM PTSF methodology yields a calculated LOS D, which would equate to an average traffic speed of less than 44 mph. For these reasons, the traffic consultant, RK Engineering, and the County's Public Works Traffic Engineering Division have concluded that the v/c methodology provides a more accurate and realistic forecast of how increases in traffic volumes that occur over time would affect the level of service on Santiago Canyon Road.

Some commenters have objected to use of the v/c methodology in the EIR for determining whether a significant environmental impact on traffic would result from the proposed project. Many of these comments rely on the mistaken premise that that the County's Transportation Implementation Manual (TIM) dictates that the County use the HCM methodology for determining whether an increase in traffic on Santiago Canyon Road would have a significant adverse effect on the environment for the purposes of an analysis of environmental impacts under CEQA.

Approval of the proposed project application is contingent upon the proposed General Plan amendment to the TIM. This amendment allows the v/c methodology to be used to calculate level of service on Santiago Canyon Road for purposes of compliance with the GMP policy that LOS C be maintained on Santiago Canyon Road. It this proposed amendment is not adopted, then the

proposed project would be inconsistent with the General Plan, even though Santiago Canyon Road is shown to operate at LOA A by the more technically accurate methodology, and as measured by travel time runs and field observations of traffic speeds. Absent a General Plan amendment to the TIM, for purposes of determining compliance with the GMP LOS C policy, the existing level of service must be calculated by the HCM PTSF method, even though existing travel conditions on Santiago Canyon Road do not reflect the travel speeds anticipated with an LOS D.

However, the TIM does not specify what methodology must be used to forecast traffic impacts for the purpose of a CEQA analysis. The TIM requires that the HCM methodology be used for the purpose of determining compliance with the Traffic Element's Growth Management Plan (GMP) policy that LOS C be maintained on Santiago Canyon Road. Thus, this TIM requirement is part of the GMP land use policy that development should not be approved (except for development that is exempted from application of the GMP policy) when forecasts of traffic using the HCM PTSF methodology show that level of service would be forecast to be LOS D or below.

Nothing in the GMP or the TIM prohibits the County from changing the GMP or TIM to use a more accurate and reliable methodology, such as the v/c methodology, for forecasting actual future traffic impacts for the purposes of disclosing those impacts in an EIR. CEQA gives public agencies authority to choose an appropriate methodology for assessing environmental impacts. Consistent with CEQA's requirements, it is appropriate for the County to use the v/c methodology for forecasting and assessing traffic impacts in its environmental analysis, because that methodology has been shown to provide more reliable and accurate forecasts than the HCM PTSF approach.

Thus, any project would not be consistent with the County's General Plan GMP land use policy if the project were to cause the level of service on Santiago Canyon Road segments to drop below LOS C. The present version of the TIM requires that for determining compliance with this policy, level of service shall be forecasted by using the HCM PTSF methodology. But as demonstrated in this EIR, that methodology renders false results and should be changed to the more accurate v/c methodology.

The County also uses LOS C as the threshold of significance for purposes of an environmental impact analysis under CEQA for traffic impacts on Santiago Canyon Road. In this EIR, the environmental impact analysis for traffic on Santiago Canyon Road used the v/c methodology to forecast actual traffic impacts, since the proposal includes a General Plan amendment to the TIM. The v/c methodology forecasts that the level of service for traffic with the project in place would be LOS A.

It should also be noted that the EIR contains a discussion of the level of service results using the HCM methodology. It shows that Santiago Canyon Road presently operates at a LOS D during the A.M. and P.M. peak periods (Table 3.14-3 of the Draft EIR) and explains that adding traffic from the proposed project would place the calculated level of service somewhat lower within the LOS D range. Thus, the analysis shows that using the HCM PTSF methodology to calculate the

impacts to Santiago Canyon Road would result in a significant impact under the EIR's significance standard since any increase in traffic would degrade the existing level of service, LOS D. As a result, the EIR does disclose the traffic impacts on Santiago Canyon Road segments under the HCM PTSF methodology.

Growth Inducing Impacts: Growth inducing impacts are discussed in detail in Chapter 8.0 of the Draft EIR and in Section 2.8 of the Final EIR. Comments and questions relating to growth inducing impacts indicate there may be some confusion about the effect that the proposed amendment to the General Plan would have on growth in the area.

With respect to questions about the traffic impacts along Santiago Canyon Road outside of the project area due to the proposed General Plan Amendment to the TIM, it should be noted that those impacts are fully accounted for in the EIR's traffic analysis. Future traffic volumes (year 2015 and 2035) were obtained from local area travel demand forecasting models developed by Austin Foust and Associates. These models account for traffic from buildout of planned land uses as identified in City and County planning documents. Their forecasts of future traffic volumes assume development consistent with planned land uses and do not discount the volume of projected traffic based upon potential constraints on development that could prevent full buildout from occurring, such as the existing TIM policy for calculating level of service on Santiago Canyon Road. As a result, the traffic volume data in the traffic analysis includes forecasted traffic from full buildout of planned land uses in the area and reflects the impacts that would occur, for purposes of determining compliance with the GMP level of service standard, in the absence of the artificial restraint on development that has resulted from the currently required use of the HCM PTSF methodology to calculate level of service on Santiago Canyon Road.

Effect of Traffic Amendment on Development: While changing the methodology for calculating level of service for purposes of the GMP LOS standard would change a regulatory limitation on development, as a practical matter, the change is unlikely to result in a significant amount of growth. Chapter 8.0 of the Draft EIR mentions that a maximum of 717 additional residences can be constructed within the F/TSP area under the current regulations and requirements (page 8-4 of the Draft EIR). It should be noted that the F/TSP area has three major ingress/egress points, Santiago Canyon Road heading northwest towards the City of Orange, El Toro Road heading southwest toward the City of Lake Forest, and Trabuco Canyon Road heading southeast towards the City of Rancho Santa Margarita. A majority of these potential residences would be located in the eastern portion of the F/TSP area, which would predominately utilize Trabuco Canyon Road or Live Oak to El Toro Road as the main point of ingress/egress into the F/TSP area. The proposed change of methodology for Santiago Canyon Road is not anticipated to spur any new development within the eastern portion of the F/TSP area, as this area has significant constraints including: significant biological resources, limited transportation and sewer infrastructure, and regulations that limit the number of new building permits to be issued (Circulation Phasing Plan of the F/TSP, pages II-44 through II-48).

Also, this proposed General Plan Amendment would not impact how the County analyzes smaller projects. The County does not analyze traffic impacts on Santiago Canyon Road (or on other

roads in the unincorporated County) for projects that are anticipated to generate less than 200 average daily trips. Therefore, these projects would be exempt from complying with the LOS C requirement for Santiago Canyon Road in the County's General Plan, regardless of what methodology is used to measure traffic. As indicated on page 3.14-19 of the Draft EIR, a single-family residential use is anticipated to generate an average of 12 daily trips. Therefore, a proposal of 16 single-family homes within the F/TSP, Silverado-Modjeska Specific Plan or unincorporated East Orange area could be approved consistent with all existing General Plan regulations, because such a proposal would only generate 192 average daily trips.

Since smaller subdivisions of 16 units or less would be allowed under existing requirements, the proposed General Plan Amendment would have no effect on the County's analysis and processing of these subdivisions. The proposed General Plan Amendment to the TIM would only affect the County's traffic analysis for projects in excess of 16 single-family units.

As mentioned above, the traffic forecasts for years 2015 and 2035 include anticipated development that is allowed under the County's General Plan Land Use designation, regardless of the TIM methodology effect on projects larger than 16 units. However, the County has identified parcels that the proposed General Plan Amendment to the TIM could affect.

The zoning for the Silverado-Modjeska and East Orange areas is predominately either "Open Space" (OS) or "General Agricultural" (A1) (these areas include Silverado Canyon, Modjeska Canyon, Trabuco Canyon and other East Orange unincorporated areas that contribute to traffic on Santiago Canyon Road). There are a number of smaller parcels that are either zoned commercial or a higher density residential; however, these parcels are too small to comply with all existing regulations and create a project that would exceed 200 average daily trips. It is not anticipated that the proposed change in traffic methodology would affect these smaller parcels or parcels in the OS zone, as single-family residences are not permitted in the OS zone. Therefore, the change in traffic methodology would only affect development within the A1 zone for the Silverado-Modjeska and East Orange areas.

The A1 zone has a maximum density of one dwelling unit for every four acres. The maximum size for a subdivision within the A1 zone that would be exempt from analyzing the traffic impacts to Santiago Canyon Road would be 67 acres, as any development in excess of 16 units would be required to analyze traffic impacts to Santiago Canyon Road.

Within the East Orange and Silverado-Modjeska areas, Staff has identified 21 privately owned properties where the area exceeds 67 acres. The proposed amendment would affect the County's traffic analysis if a proposal to subdivide and develop these 21 properties into lots, each lot being approximately four acres (to analyze the maximum theoretical development capacity under existing zoning). The maximum theoretical development capacity would be approximately 989 units on 3,991 acres (see **Attachment B** of this document).

It must be recognized, however, that the change in the methodology for calculating level of service for purposes of the GMP LOS standard does not necessarily mean that an increase in either applications for development or development approvals would result. As noted above, most

of the traffic that would be generated by new development in the eastern portions of the F/TSP area would likely not impact traffic on Santiago Canyon Road. This indicates that factors other than the General Plan traffic policy constrain development within this part of the County. Factors that would likely constrain development within the F/TSP, Silverado-Modjeska Specific Plan, and unincorporated East Orange areas, include utility infrastructure limitations, difficult topography, and environmental constraints that typify much of this area. Other factors could also affect whether development might be proposed in this area in the future, such as: (1) gasoline prices; (2) more or fewer commercial uses in the unincorporated County; (3) traffic infrastructure improvements; (4) regional growth in traffic as a result of projects approved by the cities of Orange, Lake Forest, Mission Viejo and Rancho Santa Margarita; and (5) availability of public transportation options in the area.

Wildlife Corridor: Discussion of the wildlife corridor was included in Section 3.3 of the Draft EIR and Section 2.10 of the Final EIR. A commenter has noted that the wildlife corridor was incorrectly identified in the Final EIR. However, the wildlife corridor alignment was not relocated from its location under the F/TSP as the commenter suggests. The wildlife corridor shown in the F/TSP (Exhibit II-3 of the F/TSP) was digitized by PCR biologists. Since GIS/CAD data from the County was not available for this exhibit, the exhibit was digitized from the PDF of the F/TSP map. The F/TSP exhibit is a broad scale map (1":3500'), and since it had to be digitized from a PDF, it was necessary to georeference the PDF. Hunsaker & Associates also prepared such an exhibit, based upon digitization of the wildlife corridor alignment shown in the F/TSP. Due to the scale at which the original F/TSP exhibit was mapped and having to digitize it from a PDF (rather than having precise GIS/CAD data available), there are some differences between the PCR and Hunsaker exhibits, likely resulting from subtle differences in georeferencing and digitizing such a broad scale map from a PDF. The F/TSP wildlife corridor exhibit digitized by PCR was used for the final analysis of the corridor location, since PCR biologists did the site-specific delineation of the corridor, as shown by the PCR delineated wildlife corridor extent, which is the actual corridor that exists on the ground. There are areas of the PCR delineated wildlife corridor extent that are far less than 400 feet in width. However, the F/TSP requires that a corridor be a minimum of 400 feet in width. Accordingly, the western boundary of the broad scale F/TSP wildlife corridor alignment was used and 400 feet were measured east from that point. That area, plus any areas of the PCR delineated wildlife corridor beyond that, was established as the wildlife corridor, and the setbacks and proposed development were placed beyond the wildlife corridor extent.

Furthermore, the F/TSP likely acknowledges that large scale of the exhibits by requiring that all "*parcels containing wildlife corridors…..and parcels within 150 feet of any designated corridor*" shall prepare a site-specific wildlife corridor analysis (page II-11). Additionally, the analysis for the mapped F/TSP wildlife corridor was completed over 20 years ago. Environmental conditions especially as a result of the 2007 Santiago fire could have shifted the wildlife corridor since 1991.

As required by the F/TSP, PCR delineated the wildlife corridor. The methodology used by PCR includes, "information compiled from the literature, input from wildlife agency personnel, observations made in the field during survey work for groundtruthing and fine-scale refinement

and analysis of aerial photographs and topographic maps" (*Saddle Crest Biological Resources Assessment,* Appendix D.1 of the Draft EIR). The report concludes, "this wildlife corridor follows a drainage and is likely currently utilized as a preferred travel route since it provides added habitat value for wildlife" (*ibid*, page 36). The report then defines the wildlife corridors the canopy of the oak woodlands. The area identified in the site-specific, mapped wildlife corridor must meet the regulations found within Section II.C.2.0 of the F/TSP, not the general large-scale Exhibit II-3 found in the F/TSP. This exhibit only requires that parcels within or approximately 150 feet from the wildlife corridor need to prepare the site-specific analysis.

Use of Project Site by Deer as Nursery: A commenter raised additional concerns that a portion of the project site outside of the wildlife corridor is being used by deer as a nursery (providing photo-documentation). The background material and photo-documentation is acknowledged and provides information detailing deer fawning and use of the project site. Nonetheless, the corridor and adjacent area within the fuel modification zone would be avoided by the proposed project (with the exception of periodic fuel modification activities). Although increased urbanization within the area may affect deer by deterring them to some degree, this area would still be available for the deer to utilize. Additionally, deer are not considered a sensitive wildlife species. Furthermore, as this area is part of a wildlife corridor, deer could utilize other areas within the corridor, as well as, open space areas to the north and south for breeding and foraging.

Fuel Modification: A commenter requests that the applicant be required to provide fuel modification for Lot Q (see Figure 2.1 of the Final EIR), which would not include any structures under the proposed project. The nearest proposed structure (Lot 58) to Lot Q is approximately 470 feet. Fuel modification has been provided for the proposed project as shown on the approved Precise Fuel Modification Plan (see Figure 3.7-2 and Appendix H of the Draft EIR) to mitigate potential fire hazard potential for all proposed structures as part of the development. No off-site fuel modification easements exist on the project site, and all fuel modification required for the proposed project is contained on-site. Therefore, since Lot Q would not contain a structure and would be located approximately 470 feet from a structure, fuel modification for this lot is not required.

Public Access to Open Space: A commenter states that public access to open space from the project site is unresolved by allowing the public to cross a greenbelt at the northern boundary. However, there are no greenbelt areas on the northern boundary. As mentioned in Mitigation Measures MM 3.3-1C, the project includes a fence that would separate the project site from open space areas, which would also include locked gates restricted for landscape maintenance and fuel modification access.

Horse ownership within the F/TSP: a commenter states that approval of the proposed project would prohibit the keeping of horses on the subject property, and would ultimately affect horse ownership within the entire F/TSP area. Approval of the proposed project would not prohibit the residential keeping of horses within the project site or the F/TSP area. Actually the number of horses permitted within the project site would increase. Section III.F.3.0 (page III-83) of the F/TSP permits horses on lots over 20,000 square feet. Horses are prohibited on new lots with less

than 20,000 square feet in area. Per this section of the F/TSP, the existing site would be permitted to have up to 15 horses on the property. The proposal would create 12 lots with over 20,000 square feet in area, with each of these lots allowed to keep up to four horses on each site for a total of up to 48 horses. However, whether or not horses are kept on these properties would be up to the future property owners and/or the homeowners association regulations.

Also, the statement about prohibition of the keeping of horses within the entire F/TSP area is also incorrect. The proposed Specific Plan amendments do not amend the commercial or residential horse keeping regulations (Section III.F). New building sites in excess of 20,000 square feet would still be allowed to keep horses. Although the proposed Specific Plan amendment allowing consideration of clustering concepts within the Upper Aliso Residential (UAR) District may create lots less than 20,000 square feet in area, this amendment would have no impact to the minimum lot size requirement of at least 20,000 square feet in the Trabuco Canyon Residential (TCR) and Trabuco Oaks Residential (TOR) Districts. Therefore, all new building sites created in these districts would be permitted to keep horses.

Amendment to the Introduction of the County's General Plan: County Counsel recommended this particular amendment because the County has had several court cases during the past 15 years in which the courts have differed with the County's historical interpretation of its own planning documents, and this has caused significant confusion relating to plan interpretation issues. County counsel concluded that is important to include in the General Plan an overall description of plan interpretation embodied in the state planning laws both to provide guidance to County officials and to inform the public of those planning law concepts as they exist. Thus, County Counsel determined that the County should place these principles of state planning law directly into the County's General Plan document.

While the first draft of the amendment was circulated for public review, commenters opined that the amendment could be interpreted in such a way that the County could balance mandatory regulations against one another and choose not to follow those mandatory regulations. That was not the intent of the County or what is contained in applicable law. To address this issue, in late July 2012, shortly before the Planning Commission meeting, the County amended some of the proposed language to eliminate the possibility of that interpretation. In this newer proposed amendment, the County removed the words "policies and implementation measures" and "policies and provisions" from the paragraphs discussing harmonizing (or balancing) goals and objectives. This amendment makes it clear that mandatory policies and other provisions will not be compromised.

Implementation of the General Plan and F/TSP: Consistency of the Saddle Crest Homes Area Plan with various provisions of the Orange County General Plan and the F/TSP is discussed in several documents, including the Saddle Crest Homes Area Plan, the summary of the Rural Components of Saddle Crest Homes (Appendix C to the Final EIR), and Sections 3.1 through 3.15 of the Draft EIR, including an overview of consistency in Section 3.9, *Land Use*, of the Draft EIR and the OC Planning Staff Report for the Orange County Planning Commission, dated July 25, 2012. In addition, the Foothill/Trabuco Specific Plan Project Consistency Checklist

(Appendix A to the F/TSP) completed for the proposed project by Staff (Appendix B to the Final EIR). This analysis shows that, with adoption of the proposed amendments to the F/TSP, the proposed project would be consistent with all F/TSP Regulations. The Consistency Checklist also concludes that the proposed project is in "overall compliance with the Specific Plan Guidelines and with the Goals and Objectives of the Specific Plan." The following discussion provides an overview of some of the features of the Saddle Crest Homes Area Plan which relate to implementation of various provisions of the General Plan and the F/TSP.

- Density of development. The General Plan land use designation for the site is "Suburban Residential" (1B). The Suburban Residential designation provides flexibility for residential development and comprises a broad range of housing types with density ranging from 0.5 to 18 dwelling units per acre. At 2.5 residences per net acre, the proposed project is at the low end of the density limits of the Suburban Residential land use designation, and is, therefore, consistent with that designation. The density is also consistent with the F/TSP which allows up to 65 residences on the property, based on compliance with the F/TSP provisions related to creation of a single density cap for the four parcels that together comprise the project site.

- Rural character. The proposed project is a low-density development with 65 homes on a 113.7-acre site. The design of the development and the building envelope available for each residential lot, as well as the landscape plan for the development, results in a varied street scene, which incorporates a range of rural design elements, which are discussed in detail both in the Saddle Crest Homes Area Plan and in Appendix C to the Final EIR (Rural Components of Saddle Crest Homes). The development would include rolled curbs without sidewalks, variable setbacks, wide lot frontages, varying garage setbacks and other rural design elements. Lot sizes would vary, but all would be large size lots, much larger than typically found in urban areas, averaging over 17,000 square feet, with large lot widths. Designs of the residences would be non-repetitive with the colors being predominantly earth tones. A comprehensive resource mitigation and management strategy would be implemented relating to vegetation, the riparian corridor, and other natural resources. No significant landforms would be disturbed. New plantings would be primarily native species, existing native oak areas would be enhanced, and a mixture of plants would be used to create a natural appearance in landscaped areas. A 100-foot scenic corridor setback from Santiago Canyon Road would be provided along with landscape screening of the homes nearest to the road. Oak trees would be planted adjacent to the Santiago Canyon Road right-of-way to enhance the visual quality of the scenic corridor. A riding and hiking trail, as well as a bikeway, would also be provided adjacent to the road. The site would include large areas of vegetated open space within and adjacent to the developed area, and would preserve both a natural drainage course and wildlife corridor on the property. The large block of open space that would be permanently preserved adjacent to other large areas of open space, including the Cleveland National Forest, would also contribute significantly to the rural character of proposed project and its compatibility with the area.

- Buffer for the Cleveland National Forest. The clustered development provided by the Saddle Crest Homes Area Plan reduces the overall size of the development footprint, in comparison with a non-clustered pattern of development, thereby allowing much of the site to be maintained in a large block of open space. Consistent with the General Plan Resources Element, and the F/TSP objective relating to a buffer, the proposed project is configured to concentrate the developed area to allow for preservation of approximately 51 acres immediately adjacent to Cleveland National Forest property owned by the U.S. Forest Service. This property would be offered for dedication, thus providing a permanent buffer for the Cleveland National Forest.

- Landforms. The proposed project would not affect any significant landform features, such as major ridgelines and major rock outcroppings. The proposed development is not located within 200 feet horizontally or 50 feet vertically of any major ridgeline or major rock outcropping identified in the F/TSP. The development has been designed to be contained within in a well-defined perimeter, and slope gradients would be similar to those that now exist on-site.

- Biological resources. The proposed project would implement project design features and mitigation measures that would limit impacts on biological resources. By clustering the homes adjacent to existing roads and development, the overall geographic extent of land disturbance, disruptive edge effects, and fragmentation of open space areas would be significantly reduced in comparison with a scattered, non-clustered plan of development. The Saddle Crest Homes Area Plan would thus preserve a large block of open space (approximately 51 acres) in close proximity to other large blocks of open space (including the Saddle Creek North and Saddle Creek South sites) and contiguous to the Cleveland National Forest, which would provide permanent connectivity and linkages to foster wildlife movement. The proposed project would preserve significant biological resources, including oak woodlands and riparian areas. A wildlife corridor would be dedicated along the western side of the site which would also facilitate wildlife mobility. The project design features and mitigation measures adopted for biological resources would mitigate impacts to biological resources to a less than significant level.

- Oak trees. Because the proposed project would be clustered, approximately 75 percent of the oak trees on the site would be preserved in place. The amendments proposed to the F/TSP would allow mitigation that is more effective than the F/TSP's existing oak tree mitigation regulations. The mitigation program for oak trees includes preservation, restoration and enhancement of preserved oak groves through sustainable tree plantings. This oak tree mitigation approach is expected to result in the establishment of approximately seven replacement trees for every affected oak tree. This mitigation approach integrates the latest in restoration techniques and meets state law mitigation standards contained in Public Resources Code section 21083.4.

- Wildlife corridors. A site-specific wildlife corridor analysis has been completed for the designated corridor that traverses the westernmost portion of the property, consistent with

the F/TSP requirement that a site-specific delineation of the wildlife corridor be completed. The corridor was mapped by a qualified wildlife biologist based on ground-truthing and fine-scale mapping of vegetation cover provided by the coast live oak woodland canopy. In accordance with the F/TSP, a four-acre parcel has been designated as the wildlife corridor (over which an open space preservation easement would be placed). In addition, a 50-foot wide setback area containing common area landscaping would provide a buffer adjacent to the wildlife corridor.

- Streambeds. The proposed project would avoid impacts to the drainage to the east of the property, which is identified as a designated streambed in the F/TSP. By clustering the development footprint, this stream would be preserved in its natural state. With detention basins incorporated into the project design, run-off velocities would be at or below existing flows. The water quality design for the development provides an efficient design for treating runoff and also incorporates several other Low Impact Development techniques.

- Scenic highway viewshed. The proposed project is consistent with the Scenic Highway Plan component of the Orange County General Plan and the Resources Overlay Component (Scenic Highway Viewshed) of the F/TSP. The proposed project includes circulation and roadway elements that would reflect the site's rural character. The highway plan for Santiago Canyon Road included in the Saddle Crest Homes Area Plan includes landscaping and setbacks from the Santiago Canyon Road right-of-way which are designed to preserve and enhance the scenic amenities of the corridor. The proposed project would include a setback of 100 feet from the ultimate right-of-way of Santiago Canyon Road. A scenic easement would also be provided along the Santiago Canyon Road frontage and a landscaped parkway with a riding and hiking trail would be provided within this easement. In addition, a bikeway would be provided within the Santiago Canyon Road right-of-way. Oak trees planted within this area would also enhance the visual quality of the viewscape corridor.

Additions and Revisions to the Draft/Final EIR

Changes made to the Draft and/or Final EIR are identified here in ~~strikeout text~~ to indicate deletions and in **bold underlined text** to signify additions.

Pages 1-48 through 1-49 of the Draft EIR, Table 1.4, Summary of Impacts and Mitigation Measures, is hereby modified as follows:

		Proposed Project		Non-Clustered Scenario		Level of Significance after Mitigation
Environmental Impact	Level of Significance	Project Design Features	Mitigation Measures	Project Design Features	Mitigation Measures	
Air Quality						
Impact 3.2.2: Violate air quality standards or contribute to air quality violation.	Potentially significant **(construction: NO_x, PM_{10} and $PM_{2.5}$)** **Less than significant (construction: ROG, CO, and SO_2, and all operational emissions)**	None proposed	**MM 3.2-1** The following measures are required to reduce emissions of fugitive dust, including PM_{10} during construction activities for the proposed project and the non-clustered scenario. Prior to the issuance of any preliminary grading permits, the applicant shall provide evidence to the Manager, Permit Services that the following measures are compliant with SCAQMD Rule 403 for best available control measures. • Haul trucks shall be covered when loaded with fill (applicable only to non-clustered scenario). • Paved streets shall be swept at least once per day where there is evidence of dirt that has been carried on to the roadway. • Watering trucks shall be used to minimize dust. Watering should be sufficient to confine dust plumes to the project work areas. • Active disturbed areas shall have water applied to them three times daily. • Inactive disturbed areas shall be revegetated as soon as feasible to prevent soil erosion. • For disturbed surfaces to be left inactive for four or more days and that will not be revegetated, a chemical stabilizer shall be applied per manufacturer's	None proposed	MM 3.2-1 through MM 3.2-3	Significant (construction: **NO_x and PM_{10}**) **Less than significant (construction: ROG, CO, and SO_2, $PM_{2.5}$ and all operational emissions)**

Environmental Impact	Level of Significance	Proposed Project: Project Design Features	Proposed Project: Mitigation Measures	Non-Clustered Scenario: Project Design Features	Non-Clustered Scenario: Mitigation Measures	Level of Significance after Mitigation
			instruction. • For unpaved roads, chemical stabilizers shall be applied or the roads shall be watered once per hour during active operation. • Vehicle speed on unpaved roads shall be limited to 15 miles per hour. • For open storage piles that will remain on-site for two or more days, water shall be applied once per hour, or coverings shall be installed. • For paved road track-out, all haul vehicles shall be covered, or shall comply with vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads. • During high wind conditions (wind speeds in excess of 25 miles per hour), all earthmoving activities shall cease or water shall be applied to soil not more than 15 minutes prior to disturbing such soil. **MM 3.2-2** The following mitigation measure shall be incorporated to minimize emissions of NO_X associated with construction activities for the proposed project and the non-clustered scenario: • All construction equipment used on-site and for on-road export of soil shall meet USEPA Tier II or Tier III certification requirements. **MM 3.2-3** The project shall comply with all applicable			

Environmental Impact	Level of Significance	Proposed Project: Project Design Features	Proposed Project: Mitigation Measures	Non-Clustered Scenario: Project Design Features	Non-Clustered Scenario: Mitigation Measures	Level of Significance after Mitigation
			SCAQMD regulations, i.e. Rule 401 – Visible Emissions, Rule 402 – Nuisance, and Rule 1113 – Architectural Coatings to minimize criteria air pollutant emissions (NO_X and PM_{10}).			
Impact 3.2.3: Result in a cumulatively considerable increase of non-attainment criteria pollutants.	Potentially significant **(construction: NO_x, PM_{10} and $PM_{2.5}$)** **Less than significant (construction: ROG, CO, and SO_2, and all operational emissions)**	None proposed	MM 3.2-1 through MM 3.2-3	None proposed	MM 3.2-1 through MM 3.2-3	Significant (construction**: NO_x and PM_{10}**) **Less than significant (construction: ROG, CO, and SO_2, $PM_{2.5}$ and all operational emissions)**
Traffic and Transportation						
Impact 3.14.1: Substantial increase in traffic in relation to existing traffic load and capacity, or conflict with transportation plans, policies, or ordinances.	**Potentially** ~~Less than~~ significant **(intersection capacity)** **Less than significant (Santiago Canyon Road segment capacity)** [1]	None proposed	**MM 3.14-1** Prior to project occupancy, the project applicant shall contribute their fair share of the cost to install traffic signals and signal-related equipment at the intersection of Santiago Canyon Road and Live Oak Canyon Road. **MM 3.14-2** Prior to project occupancy, the project applicant shall contribute their fair share of the cost to the following improvements at the intersection of El Toro Road and Glenn Ranch Road: • Eastbound Glenn Ranch Road: Install a second left turn lane • Westbound Glenn Ranch Road: Install a second receiving lane **MM 3.14-3** Prior to the issuance of building permits, the applicant shall pay fees for the Major Thoroughfare and Bridge Fee Program listed below, in a manner meeting the	None proposed	MM 3.14-1 through MM 3.14-4	Significant **(intersection capacity)** **Less than significant (Santiago Canyon Road segment capacity)**

[1] **Less than significant determination based on the use of v/c methodology.**

Environmental Impact	Level of Significance	Proposed Project: Project Design Features	Proposed Project: Mitigation Measures	Non-Clustered Scenario: Project Design Features	Non-Clustered Scenario: Mitigation Measures	Level of Significance after Mitigation
			approval of the Manager, Subdivision and Grading: • Foothill/Eastern Transportation Corridor • Foothill Circulation Phasing Program • Santiago Canyon Road			
Impact 3.14.2: Exceed level of service standards established by congestion management agency, or conflict with congestion management program.	**Potentially** ~~Less than~~ significant **Less than significant (Santiago Canyon Road segment capacity)** [2]	None proposed	MM 3.14-1, MM 3.14-2	None proposed	MM 3.14-1, MM 3.14-2	Significant **(intersection capacity)** **Less than significant (Santiago Canyon Road segment capacity)**

Page 2-19 of the Draft EIR, Table 2.2, Cumulative Project List, is hereby modified as follows:

21	Los Alisos Townhomes	~~230~~ **320** apartments on 10 acres.	Approved

2 ***Ibid.***

Page 3.11-8 of the Draft EIR is hereby modified as follows:

Name/Address	Description	Increased Population [a]
Watson Parcel	48 single-family dwelling units	154
Saddleback Meadows	266 single-family lots	851
Robinson Ridge	198 single-family homes	634
Crocker Property	four single-family homes	13
Lang Property	Six single-family lots	19
Johnson Residence	One single-family dwelling	3
Portola Center	930 homes, parks, and mixed uses	2,976
RSM Townhomes	66 multi-family units	211
Highland Estates	Eight single-family units	26
Andalucía Mission Viejo	256 multi-family units	819
Los Alisos Townhomes	~~230~~ **320** apartments	~~736~~ **1,024**
	Total	~~6,442~~ **6,730**

[a] Population is based on 3.2 persons per household; the same as was used to calculate the project's population.
SOURCE: County of Orange, 2011; City of Lake Forest 2012; City of Rancho Santa Margarita, 2012; City of Mission Viejo, 2012.

Along with the project, cumulative population increase would be approximately ~~6,442~~ **6,730** additional residents. This would represent an approximate ~~2.2~~ **2.3** percent of the anticipated growth in unincorporated Orange County and an approximate ~~0.18~~ **0.19** percent anticipated growth in Orange County as a whole for 2030.

Page 3-102 of the Final EIR, Figure 3.1 has been modified and is included at the end of this section.

SOURCE: Bing Maps, 2010; ESA, 2012.

Saddle Crest Homes . 211454

Figure 3.1
Jurisdictional Control of Santiago Canyon Road

ATTACHMENT A

Saddle Crest Project – Ridgeline Road North at Santiago Canyon Road

RK engineering group, inc.

transportation planning · traffic engineering
acoustical engineering · parking studies

September 4, 2012

Mr. Mike Eadie
RUTTER SANTIAGO, LP.
18012 Cowan, Suite 200
Irvine, CA 92614

Subject: Saddle Crest Project – Ridgeline Road North at Santiago Canyon Road and Traffic Safety along Santiago Canyon Road

Dear Mr. Eadie:

Introduction

At the July 25, 2012 Planning Commission public hearing for the Saddle Crest Homes project, questions were raised about the project's traffic impact at the intersection of Ridgeline Road North and Santiago Canyon Road. Also comments were raised during the public review period regarding traffic safety at the project access at Santiago Canyon Road and overall traffic safety along Santiago Canyon Road.

Ridgeline Road North at Santiago Canyon Road

The intersection of Ridgeline Road North and Santiago Canyon Road was not included in the traffic study because it is a minor unsignalized intersection and intersections on both sides of it were included in the traffic study. Because the traffic study included intersections both north and south of Ridgeline Road North, the potential traffic and circulation system impacts of the project would be adequately addressed. Since the project is residential and Ridgeline Road North primarily serves other residential uses, it is not anticipated that the project would have any significant turning movements into or out of Ridgeline Road North.

The traffic volume on Ridgeline Road North is very low (only 1,305 ADT) and is significantly below its design capacity. All of the project traffic would pass through the intersection and, therefore, would have an insignificant impact upon the intersection. No project trips are expected to turn at Ridgeline Road North, which would contribute to a decrease in level of service. The traffic study did, however, include the Santiago Canyon Road segments in the vicinity of Ridgeline Road North, and they were all determined to have acceptable levels of service.

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newport beach, california 92660
tel 949.474.0809 fax 949.474.0902
http://www.rkengineer.com

RK Engineering Group, Inc. (RK) has also reviewed the collision history at the intersection of Ridgeline Road North at Santiago Canyon Road, based upon Orange County Public Works Department collision records (Appendix A). During the past 36 months (3 years), there was only one (1) collision in the vicinity of the intersection that occurred. That collision was a single vehicle hitting a fixed object and making an unsafe turn. Furthermore, the driver was under the influence. This collision occurred within 200 feet of the intersection. No other collisions occurred within close proximity of the intersection during this 3-year period.

Based upon the collision history and the existing traffic volumes, the existing collision rate at the intersection of Ridgeline Road North and Santiago Canyon Road was calculated (Appendix B). The calculated collision rate at this intersection during the past three (3) years is 0.12 collisions per million entering vehicles. This collision rate is less than the expected rate identified by Caltrans for similar types of T-Intersection roadways. The expect rate for rural area intersections of this type is 0.20 collisions per million entering vehicles and the collision rate for suburban area intersections of the type is 0.15 collisions per million entering vehicles. Based on the historical data, there has not been an unusually high collision rate at this intersection.

Therefore, it is not expected that the proposed project will substantially impact traffic safety at the intersection of Ridgeline Drive North and Santiago Canyon Road. The future collision rate will likely be similar to that which has occurred during the past several years and will not change dramatically as traffic increases with ambient growth and the proposed project.

RK has also reviewed this intersection from a sight distance standpoint. By reviewing aerial photographs of the intersection (Appendix C), it appears that there is adequate Santiago Canyon Road at Ridgeline Road North intersection sight distance to accommodate speeds of at least 60 miles per hour. This conclusion of adequacy is based upon Orange County Standard Plan 1117, which defines the required sight distance for various classifications of roadways in Orange County.

Traffic Safety at Project Access and Santiago Canyon Road

Traffic safety at project access and Santiago Canyon Road has been reviewed in conjunction with the overall design of the project (Appendix D). RK, in conjunction with the project Civil Engineer (Hunsaker & Associates), has reviewed intersection sight distance at the project access and Santiago Canyon Road. The review has been based upon Orange County Standard Plan 1117, which takes into account the required design speed on Santiago Canyon Road and the roadway geometry. Based upon this review, adequate sight distance can be maintained to meet County design standards. Furthermore, the traffic impact study did review the intersection from a capacity standpoint and, for Year 2035 conditions with the project, the intersection would continue to operate at a

good level of service "C", in both the AM and PM peak hour. Based upon this information, it is not anticipated that traffic safety issues would occur at the proposed project access and Santiago Canyon Road.

Santiago Canyon Road Overall Traffic Safety

The County of Orange has previously reviewed safety conditions along Santiago Canyon Road. The results of the County review indicated that the current collision rate on the segment of Santiago Canyon Road, between Live Oak Canyon Road and Silverado Canyon Road, was significantly less than the State expected collision rates for similar types of highways. The collision rate over a five-year period was 0.58 collisions per million vehicle miles; whereas, the State expected collision rate for similar kinds of roadways is 1.36 collisions per million vehicle miles. Based upon the County's Staff review, it is not expected that the project or the change in level of service methodology for Santiago Canyon Road will change the collision rate along Santiago Canyon Road.

As a result of ambient growth, other developments within the Foothill/Trabuco Specific Plan area and other cities in the area (i.e. Lake Forest, Rancho Santa Margarita, Orange, Mission Viejo, etc.) increases in traffic will occur. The level of service methodology change would not impact this regional growth and development, which is not controlled by the current level of service methodology. The total number of collisions may increase as a result of the increase in volume in comparison to existing conditions. However, it is not anticipated that the collision rate itself will change along this segment of Santiago Canyon Road. However, the total number of collisions may increase with overall increase in traffic not controlled by the level of service methodology. The change in methodology will not change the actual physical conditions of the roadway and it is not anticipated that any change in collision rates would occur during long term with additional traffic as a result of the change in methodology.

Conclusion

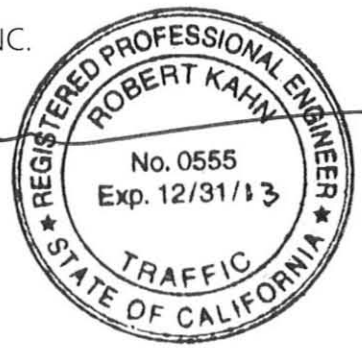
In conclusion, based upon our review, potential traffic impacts of the Santiago Canyon Road and Ridgeline Road North intersection did not need to be separately included in the traffic study, since adjacent intersections to the north/south and the adjacent roadway segments were included in the traffic study. Furthermore, based upon the collision history and the existing sight distance at the intersection, the intersection of Ridgeline Road North at Santiago Canyon Road does not have an unusually high collision rate. It is not expected to change substantially as future traffic increases in the area, even with the proposed project. Furthermore, based upon Orange County Public Works Department standards, there is sufficient sight distance at the intersection.

It is not anticipated that there will be a traffic safety problem at the intersection of the project access and Santiago Canyon Road. The proposed intersection has been designed based upon County sight distance standards and the roadway curvature has been taken into account in the development of the location of the project access. It is anticipated that the proposed project access will meet traffic safety standards and will be reviewed again at the time of preparation of grading and street improvement plans.

It is not anticipated that the overall traffic safety along Santiago Canyon Road will change significantly as a result of the change in methodology for the review of Santiago Canyon Road. Although the volume of traffic will increase from existing conditions, in any event, it is not anticipated that a change in collision rates will occur as a result of the change in methodology. The absolute number of collisions could increase as they would with any roadway with increases in traffic volumes but no change in collision rates is expected with the change in level of service methodology.

If you have any questions regarding this review or would like further review, please call me at (949) 474-0809 extension 205.

Sincerely,
RK ENGINEERING GROUP, INC.



Robert Kahn, P.E.
Principal

Attachments

XC: Mr. Dave Eadie, Rutter Santiago, LP
Ms. Peri Muretta

RK:mn/RK9545.doc
JN:2218-2011-01

Appendices

Appendix A

Ridgeline Road North at Santiago Canyon Road
Collision History for the Past Three (3) Years

County of Orange
Traffic Engineering Department

Traffic Collision History Report
Midblock Collisions

Arterial: SANTIAGO CANYON ROAD
Limit 1: COUNTRY HOME ROAD
Limit 2: CRYSTAL CANYON ROAD

Date Range Reported: 7/1/09 - 7/1/12

Report No.		Date Time	Dist/Dir	Location	Type of Collision	Motor Veh. Involved With	DOT1	MPC 1	DOT2	MPC 2	PCF	# Inj	# Kld
11-001	*	7/1/11 01:17	367' South of	SANTIAGO CANYON ROAD/RIDGELINE ROAD	Hit Object	Fixed Object	South	Other Unsafe Turning			Unsafe Speed	2	0
12-055		4/15/12 12:26	1056' West of	SANTIAGO CANYON ROAD/CRYSTAL CANYON ROAD	Hit Object	Fixed Object	West	Other Unsafe Turning			Driving Under Influence	1	0

*Not related to the intersection of Ridgeline Dr. North and Santiago canyon Rd.

County of Orange
Traffic Engineering Department

Traffic Collision History Report
Midblock Collisions

Arterial: SANTIAGO CANYON ROAD
Limit 1: COUNTRY HOME ROAD
Limit 2: CRYSTAL CANYON ROAD

Date Range Reported: 7/1/09 - 7/1/12

Report No.	Date Time	Dist/Dir	Location	Type of Collision	Motor Veh. Involved With	DOT1	MPC 1	DOT2	MPC 2	PCF	# Inj	# Kld

Total Number of Collisions: 2 Segment Length: 0.32 miles (1,666')

Settings Used For Query

Parameter	Setting
Distance from Intersections	> 50' for non rear-end collisions > 150' for rear-end collisions
Distance from Limit 1	> 50' for non rear-end collisions > 150' for rear-end collisions
Distance from Limit 2	> 50' for non rear-end collisions > 150' for rear-end collisions

Appendix B

Ridgeline Road North at Santiago Canyon Road
Collision Rate Calculations

INTERSECTION COLLISION RATES

LOCATION	NO. OF COLLISIONS	NO. OF MONTHS	ENTERING ADT	COLLISION RATE	EXPECTED COLLISION RATE RURAL/SUBURBAN CONDITIONS
Ridgeline Road North at Santiago Canyon Rd.	1	36	7,658	0.12	0.20/0.15

12-22-09

BASIC AVERAGE ACCIDENT RATE TABLE FOR INTERSECTIONS

RATE GROUP	BASE RATE	+ ADT FACTOR	PCT FAT	PCT INJ	PCT F+I	INTERSECTION TYPE *	CONTROL TYPE	AREA	ACC COSTS ($1000) F+I	ALL
I 01	0.10	0.0000	4.2	33.3	37.5	F, M AND S	NO CONTROL	RURAL	652.9	248.0
I 02	0.30	0.0000	1.9	40.6	42.5	F, M AND S	STOP & YIELD SIGNS (EXC 4 WAY)	RURAL	320.6	139.2
I 03	0.65	0.0000	0.2	35.2	35.4	F, M AND S	4 WAY STOP	RURAL	127.8	48.5
I 04	0.60	0.0000	0.8	35.7	36.5	F, M AND S	SIGNALS	RURAL	208.1	79.2
I 05	0.70	0.0000	0.8	31.4	32.2	F, M AND S	4 WAY FLASHERS	RURAL	222.6	75.1
I 06	0.30	0.0000	0.2	21.6	21.8	F, M AND S	NO CONTROL	SUBURBAN	122.6	30.7
I 07	0.30	0.0000	0.9	36.6	37.5	F, M AND S	STOP & YIELD SIGNS (EXC 4 WAY)	SUBURBAN	190.4	74.6
I 08	0.40	0.0000	0.1	44.4	44.5	F, M AND S	4 WAY STOP	SUBURBAN	91.0	43.3
I 09	0.55	0.0000	0.3	34.3	34.6	F, M AND S	SIGNALS	SUBURBAN	120.3	45.0
I 10	0.45	0.0000	0.3	34.9	35.2	F, M AND S	4 WAY FLASHERS	SUBURBAN	119.6	45.4
I 11	0.05	0.0000	0.7	40.4	41.1	F, M AND S	NO CONTROL	URBAN	143.3	61.9
I 12	0.15	0.0000	0.8	39.5	40.3	F, M AND S	STOP & YIELD SIGNS (EXC 4 WAY)	URBAN	155.8	65.8
I 13	0.25	0.0000	0.7	28.4	29.1	F, M AND S	4 WAY STOP	URBAN	174.5	54.4
I 14	0.35	0.0000	0.5	39.5	40.0	F, M AND S	SIGNALS	URBAN	123.1	52.3
I 15	0.30	0.0000	0.2	46.5	46.7	F, M AND S	4 WAY FLASHERS	URBAN	86.5	43.1
I 16	0.15	0.0000	2.3	44.9	47.2	T, Y AND Z	NO CONTROL	RURAL	340.5	163.4
I 17	0.20	0.0000	1.7	37.9	39.6	T, Y AND Z	STOP & YIELD SIGNS (EXC 4 WAY)	RURAL	311.9	126.6
I 18	0.25	0.0000	1.7	31.9	33.6	T, Y AND Z	4 WAY STOP	RURAL	349.7	120.9
I 19	0.30	0.0000	1.1	35.1	36.2	T, Y AND Z	SIGNALS	RURAL	249.9	93.7
I 20	0.25	0.0000	1.7	31.9	33.6	T, Y AND Z	4 WAY FLASHERS	RURAL	349.7	120.9
I 21	0.10	0.0000	0.9	28.2	29.1	T, Y AND Z	NO CONTROL	SUBURBAN	222.0	68.2
I 22	0.15	0.0000	0.8	36.2	37.0	T, Y AND Z	STOP & YIELD SIGNS (EXC 4 WAY)	SUBURBAN	179.5	69.6
I 23	0.25	0.0000	1.7	31.9	33.6	T, Y AND Z	4 WAY STOP	SUBURBAN	311.9	108.2
I 24	0.30	0.0000	0.8	37.4	38.2	T, Y AND Z	SIGNALS	SUBURBAN	176.4	70.5
I 25	0.25	0.0000	1.7	31.9	33.6	T, Y AND Z	4 WAY FLASHERS	SUBURBAN	311.9	108.2
I 26	0.10	0.0000	0.7	36.4	37.1	T, Y AND Z	NO CONTROL	URBAN	151.4	59.4
I 27	0.15	0.0000	0.8	39.7	40.5	T, Y AND Z	STOP & YIELD SIGNS (EXC 4 WAY)	URBAN	155.4	66.0
I 28	0.25	0.0000	1.7	31.9	33.6	T, Y AND Z	4 WAY STOP	URBAN	292.7	101.7
I 29	0.25	0.0000	0.5	40.2	40.7	T, Y AND Z	SIGNALS	URBAN	122.1	52.7
I 30	0.25	0.0000	1.7	31.9	33.6	T, Y AND Z	4 WAY FLASHERS	URBAN	292.7	101.7

12-22-09

BASIC AVERAGE ACCIDENT RATE TABLE FOR INTERSECTIONS

RATE GROUP	BASE RATE	+ ADT FACTOR	PCT FAT	PCT INJ	PCT F+I	INTERSECTION TYPE *	CONTROL TYPE	AREA	ACC COSTS ($1000) F+I	ACC COSTS ($1000) ALL

* INTERSECTION TYPES

F - FOUR-LEGGED
M - MULTI-LEGGED
S - OFFSET
T - TEE
Y - Y WYE
Z - OTHERS

Appendix C

Ridgeline Road North at Santiago Canyon Road
Sight Distance Review

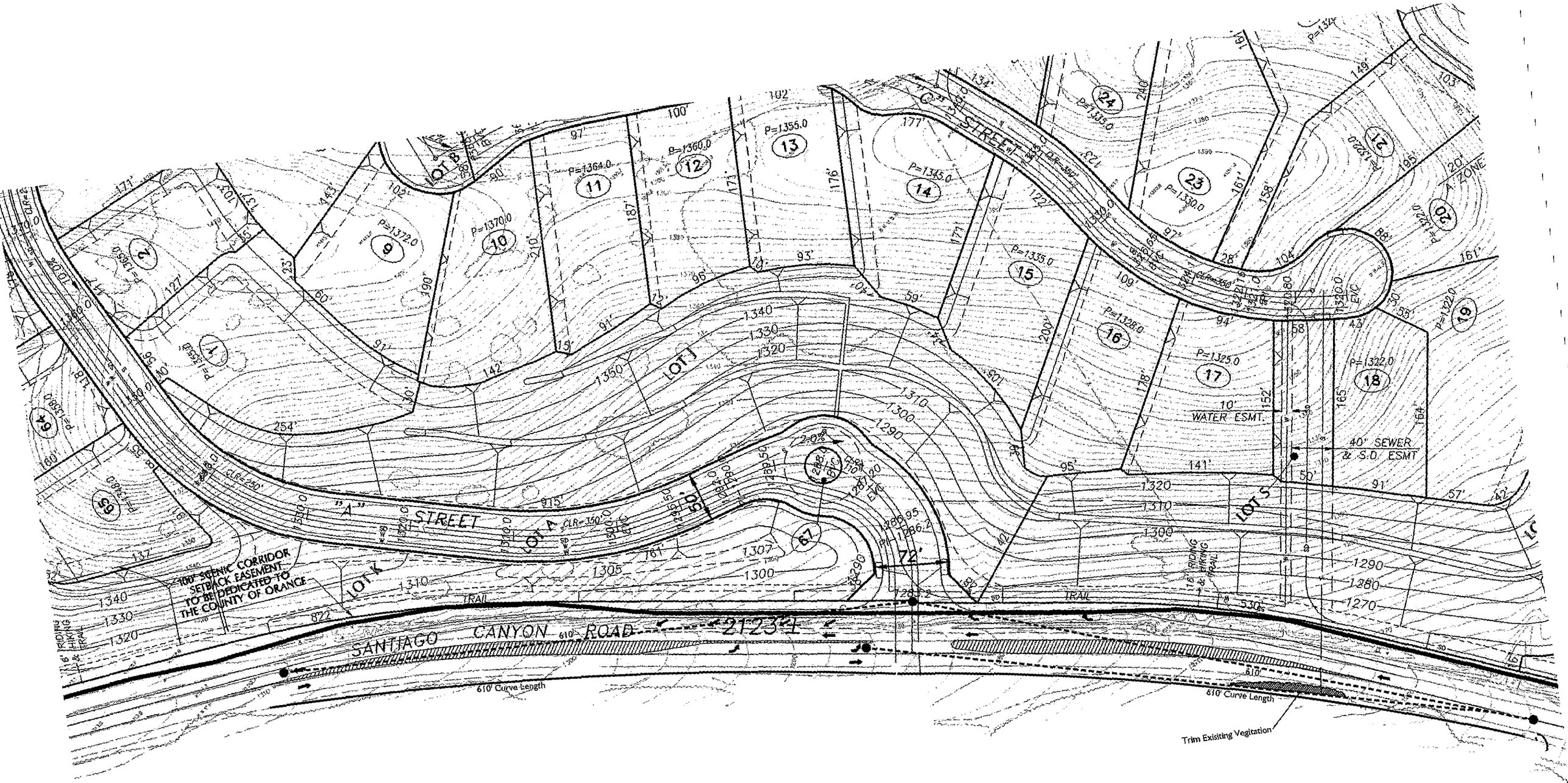

two points on the ground
661.13 Feet
661.50
114.94 degrees
Save
Clear
Ridgeline Rd
Santiago Canyon Rd
Crystal Canyon Rd
© 2012 Google
Google earth
Date 3/7/2011
1994
lat 33.690281° lon -117.625345° elev 1239 ft
Eye alt 2803 ft


e between two points on the ground
660.80 Feet
662.05
328.90 degrees
Save
Clear
© 2012 Google
Google earth
Imagery Date: 3/7/2011
1994
lat 33.691307° lon -117.626345° elev 1243 ft
Eye alt 2261 ft

Appendix D

Project Access at Santiago Canyon Road
Sight Distance Review

Intersection Sight Distance



Legend:

------ = Sight Lines

● = Sight Indicator

Design Speed = 55 MPH

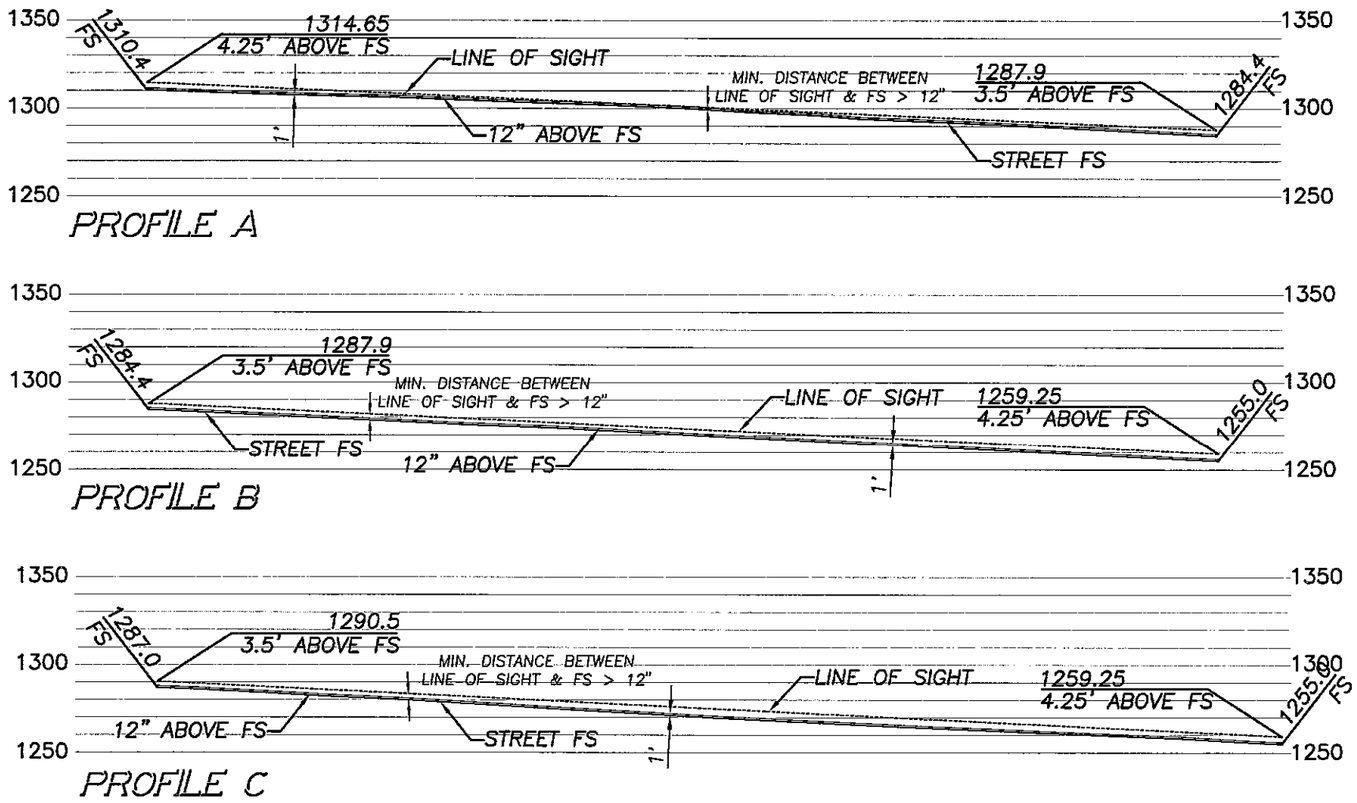
Sight Distance = 610'

Classification = Primary Arterial Highway

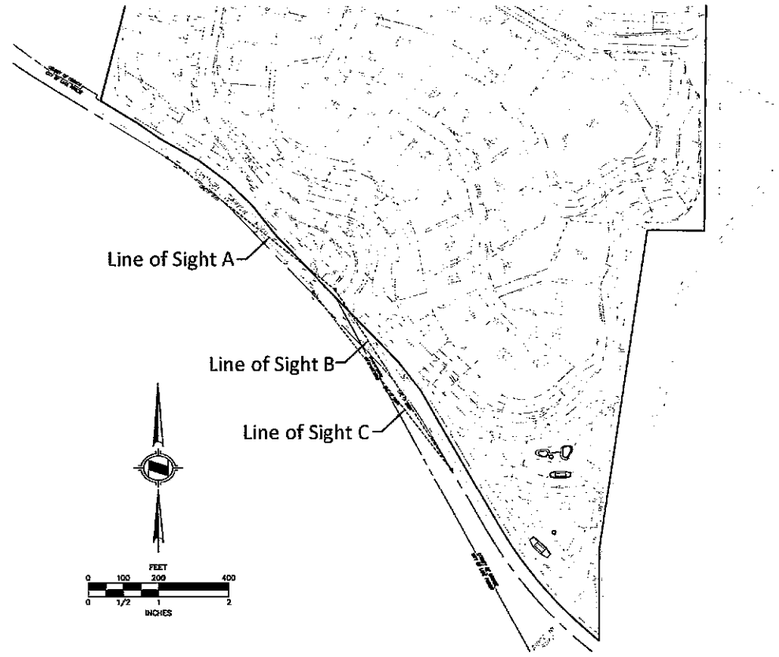
SCALE: 1" = 40'

10 0 20 40 60

RK engineering group, inc.



Horizontal Scale: 1"=40'
Vertical Scale: 1"=40'



Key Map

PREPARED FOR:

Rutter Santiago, LP
18012 Cowan, Suite 200
Irvine, CA 92614
(949) 863-1298

PREPARED BY:

HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING • ENGINEERING • SURVEYING
Three Hughes • Irvine, CA 92618
FX: (949) 583-0759 • PH: (949) 583-1010

Vertical Line of Sight
Santiago Canyon Road

DATE: JANUARY 16, 2012

PLOTTED BY: Jennifer Maher DATE: Aug. 29, 2012 09:59:29 AM FILE: F:\0599\Planning\SA_SaddleCrest\Exh_Gen\Vertical Line of Sight Santiago Cny Rd SHEET.dwg
W.O.: 2703-15X

ATTACHMENT B

Privately Owned Silverado Parcels

ATTACHMENT B

APN	Owner	Acres	Location	Notes
08508043	Linda Beek Trust	337.8	Sil-Mod	Has 1 unit on it. Access via Black Star Road.
10502070 & -240	Andrew Edwards Trust	156.4	Sil-Mod	Access via Black Star Canyon Road
10503304	Irvine Land Company	100.0	East Orange & Sil-Mod	Access via Santiago Canyon Road
10504038, -39, & -40,	Dale Cole	80.0	Sil-Mod	Access via Black Star Canyon Road
10504055	Pleasants Peak Facility Corp	164.5	Sil-Mod	Access via Main Divide Truck Trail
10505102, -04, -67, -69, -71 & 72	Ace Silverado LLC	529.1	Sil-Mod	Has 4 units on it. Access via Baker/Black Star Road
10505106 & -08	Stuart Mac Pherson Trust	202.8	Sil-Mod	Access via Black Star Canyon Road
10505111	Carl H Reinhart	98.6	Sil-Mod	Has 1 unit on it. Access via Ladd Canyon Road
10505112	Baker Square LLC	629.2	Sil-Mod	Access via Ladd Canyon Road
10505113	Exir Co Inc	80.0	Sil-Mod	Access via Hillside Lane/Silverado Canyon
10505179, -081, -082	Diane Lopez Trust	92.3	Sil-Mod	Has 2 units on it. Access via Baker/Black Star Road
10505185	Norbertine Fathers of Orange Inc	197.8	Sil-Mod	Not part of their project application
10520102, -66, & 10527031	Saddleback Valley Church	136.9	Sil-Mod	Access via Williams Canyon
10520168 & -73	Kazimierz & Linda Ruth Baczynski	114.2	Sil-Mod	Has 1 unit on it. Access vis Modjeska Canyon
10536109	Steven Belna Trust	99.0	East Orange	No access can be identified. NE of Irvine Lake
10536118	Irvine Land Company	285.8	East Orange	Access via Santiago Canyon Road
10536119	Irvine Land Company	213.6	East Orange	Contains Irvine Lake Parking Lot, Access via SCR.
10536148	Irvine Land Company	155.3	East Orange	Access via Blue Diamond Haul Road
10536150 & -52	Irvine Land Company	77.8	East Orange	Access via Blue Diamond Haul Road
86604135	Panayiotis N & Andriana P Katelaris	80.5	Sil-Mod	Access via Santiago Canyon Road
87602118	Amy M Bergman Separate Trust	159.4	Sil-Mod	Access via Williams Canyon

Total Acreage	3991.0		
Total Potential Units	998	Less, existing units (9) =	**989**